

REMARKS/ARGUMENTS

Claims 4, 5, 15, and 16 have been canceled. Claim 1 has been amended. Claims 1-3, 6-14, and 17-20 are pending.

The Examiner stated that there are no descriptions of layers (716, 1316, 1816) in FIG.'s 7-8, 13-16, and 20-12 (sic). Layer 716 is described on page 9, line 3, of the application. Layer 1316 is described on page 10, line 25, of the application. Layer 1816 is described on page 12, line 10, of the application.

The Examiner further stated that there is no trench opening 1508 in FIG. 16. The trench opening 1508 is discussed as being in and is shown in FIG. 15. The trench opening is not mentioned as being in FIG. 16.

Rejection under Judicially Created Obviousness-Type Double Patenting

The Examiner rejected claim 1 under the judicially created doctrine of obviousness-type double patenting over U.S. Patent 6,713,386 B1. A terminal disclaimer is attached.

Claim Objection

The Examiner objected to claim 1, stating that "the low-K dielectric layer" lacks clear antecedent basis. Claim 1 has been amended to change "the low-K dielectric layer" to "the dielectric", which has a clear antecedent basis.

Rejection under 35 U.S.C. 102(b)

The Examiner rejected claims 1-3, 6-14, and 17-20 under 35 U.S.C. 102(b) as being anticipated by the Background of Invention (BOI). The Examiner cited etch stop layer 212 as a poison barrier layer, which prevents resist poisoning. Claim 1 has been amended to more clearly state that the poison barrier layer prevents resist poisoning by blocking nitrogen. Page 8, lines 15-18, of the application states that a poison barrier layer is a layer that forms a barrier that blocks nitrogen, which has a base quality thus providing a nitrogen barrier that provides a resist poisoning barrier layer. Page 3, line 27, to page 4, line 20, of the application states that nitrogen poisoning causes unwanted photoresist residue 412, and that the nitrogen poisoning may come from nitrogen from the inorganic ARC and the silicon carbide barrier layer. Therefore the etch stop layer 212 does not provide a poison barrier layer to prevent photoresist poisoning by blocking nitrogen, as recited in claim 1. The Examiner failed to point out anything in the BOI that states that the barrier layer 212 blocks nitrogen. For at least these reasons, claim 1 is not anticipated by BOI.

Claims 2-3 and 6-14, and 17-20 are ultimately dependent on claim 1 and have additional features, when taken in the context of the claimed invention, further patentably distinguish the art of record. For example, claim 6 recites that the forming the poison barrier comprises chemically treating surfaces of the first aperture to provide an H^+ rich surface. In addition, claim 7 recites wherein the chemically treating comprises providing a wet chemical treatment with a solution with a pH of less than 7. These are not disclosed by BOI. For at least these reasons claims 2-3 and 6-14, and 17-20 are not anticipated by the BOI.

Respectfully submitted,
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